Testing times ahead

Today’s customer demands an integrated multi-channel experience and most retailers have invested in building a seamless operation. Testing in a multi-channel environment, however, presents many challenges. Retailers, analysts and industry experts discuss the dos and don’ts at an event, held at Tower 42, London.

“Retailers struggle to unify their multi-channel vision when they have disparate teams sitting in different areas. We talk multi-channel as an industry sector, but there isn’t anybody out there who’s truly operating as a multi-channel organisation. The big thing for testing isn’t going to be just the technical side of it, but doing what’s right for customers. Are we going to have it right in 10 years’ time when digital natives are our biggest customer base?

We have to understand that their expectations will be higher and their patience will be lower. So issues like retail websites not being able to tell them what stock is in-store will be absolutely intolerable in their world, it’s about making sure the right people are testing because things are going to look very different in the future.”

Hayley Meenan-Wilkins
Head of Web Operations at Tesco.com

“Everyone is talking multi-channel, everyone wants to know how to get the most from their customers.”
Everyone is talking multi-channel; everyone wants to know how to get the most from their customers. Retailers want loyalty and footfall, not only in-store but across all the other channels. And if you look at it from a purely testing perspective, what it means is that in the years to come there will continue to be many permutations and complexities one has to test in terms of delivering throughput and a unified customer experience, agnostic of which channel they come across.

That was the central theme discussed at the Retail Systems roundtable session in Tower 42, which could be described as a masterclass.

“The loyalty accumulated across one channel must seamlessly percolate into another. From a testing perspective, it means comprehensive testing. It’s a great opportunity for the business and the technology side to team up, because when that happens you get the most from your customer base,” explained Sivaraman Ganesan, host of the meeting and responsible for Tata Consultancy Services (TCS) global assurance services.

For Mark Lewis, CTO of Practicology, this is one of the challenges of testing in a multi-channel environment. “It’s one thing if you’re part of the IT department and you’re deploying a new application that’s being used by a small team of people, it’s quite contained,” he explained. “But as you spread it out to the retail stores and warehouses and all sorts of different aspects, it becomes really hard to manage and also to manage expectations.

Lewis added, “If you test 30 per cent and 50 per cent fails you almost don’t need to test the rest of it because you know you’ve got problems.” Lewis positively recommended containing a group of real users. “Because these real users might do things that you just never thought of. Then you can catch that before you release it onto the wider world.”

Christine Bardwell, research manager of IDC Retail Insights, added to these comments by pointing out that different teams could work together more effectively if they have a constituent within the organisation to take any issues to, such as a multi-channel director. “What’s important in multi-channel business, where you have a lot of different teams, is that you have a single point of contact.”

Bardwell suggested someone who “sits above all of these teams, above IT and marketing and all of the stores and understands how all of this fits together and controls the processes as they move down through the rest of the teams.”

According to Practicology’s Lewis, timing is another big challenge for retailers. IT teams used to be able to go in-store before opening or after closing to do testing, but now with online and mobile retail in the UK becoming increasingly 24 hour, testing will be affected. “You do as much testing as you can in a test environment but there comes a point where you have to test in a live environment,” Lewis continued. “So when do you get your down time to test where there aren’t actually real customers involved?”

Tesco.com has gained plenty of experience in this area. Mennan-Wilkins added: “And then it’s a question of; who’s going to fix it? If it does go wrong in the middle of the night who will be around to deal with the problem? Because, as UK based retailers, we’re not set up for these expectations around this 24/7 provision of absolute availability of all of our technical solutions when actually that’s the model that we need to work towards.”

Aligning processes in a complex organisation

TCS’ Siva gave one perspective, saying the notion of a test management office to be really effective: “When you look at orchestrating testing across the whole of the workflow, which means your internal supply chain has to be assured, your customer-facing channels and transactions and business processes have to be aligned, you need someone who has the role of the glue holding all of this together.

“It’s not about what you do after the event has passed; it’s about what you do to prevent problems happening. And in the event that something goes wrong, what sort of disaster recovery or backup procedure do you have to fall back and restore credibility?

“Interestingly in the IT world, testers seem to be a community who are paid to find fault, which is an occupational hazard, but they become more pro-active and more empathetic to the cause of those who build and construct and configure systems if they cross the fence and say: ‘This is what you could do in order to make all our lives simpler’.”

IDC’s Bardwell countered, saying it should be a driving force within the business. “I think if you look at the successful multi-channel businesses, if we take John Lewis as an example,” she explained. “Actually multi-channel is driven into the culture of their business, it’s engrained with the store staff and the IT staff and everyone knows that that’s what they’re striving towards. There is a bit of an incentive for John Lewis employees because they’re all partners, but I think that it needs to be
more than something that is soft it has to be something that everyone gets involved in and understands that it’s imperative to their business surviving. I don’t want to be too dramatic about it but it’s those companies that aren’t omni-channel at the moment that seem to be suffering the most.”

Practicology’s Lewis agreed that at a strategic level the omni-channel strategy needs to be driven from the top but should go throughout the business. But, at the same time, the tactical implementation of it should have a softer approach.

He said: “Nobody likes to think they’ve got an application of some functionality imposed upon them, and so you need to get the different parts of the business involved, and involved in the testing, from an early stage so that their input is heard and so they understand what the process is going to be.”

Tesco.com’s Mennan-Wilkins explained that getting all the teams within your organisation to buy-in at an early stage is really important to aligning processes and a retailer’s multi-channel strategy. She commented: “With some other retailers the store managers will be thinking online is the demise of their kingdom and do they really want to be part of this multi-channel era.”

She said: “If you look at the speed of growth and the speed of change that’s going to happen over the next 10 years it’s going to be even more phenomenal. How do we manage that with the leaders we’ve got across the industry sector?”

Alistair Wood, head of IT planning and resourcing at John Lewis, added: “I think the point of omni-channel is not to push anyone anywhere, it’s about delivering a great, seamless customer experience through whichever channel they want to shop. Be that online, in-store, via a mobile device. It’s not about saying: You have to use your mobile. If you go down that route you will alienate people. It’s about saying no matter which channel the customer chooses they will see the same stock and get the same service and experience.

“One view of the retailer for the customer and one view of the customer for the retailer, that’s what it’s about. And that’s where you get some of the complexity, before it was easy to manage customer journeys because they came in-store and that was that, now they are moving across different channels and that can be difficult to manage and test. And it’s hard to manage from a process point of view before you even get to the testing, working out what the processes are that are going to let the customers do what they want to do.”

Customers aren’t just moving across channels within one organisation and tool set, but also across all their competitors.

“My first reaction is that the expectation of the customer base is ahead of what the retailers are delivering,” said Practicology’s Lewis. “But it depends on the customer segment you’re talking about. There may well be some people who wouldn’t want to deal with all the amazing new technologies that are possible but there are some people who will want to be able to shop with any retailer on their phones.

“Outsourcing testing has its challenges and benefits.”
“If they can’t it gets very frustrating very quickly, you get very used to the new benchmark that’s been set. So as soon as there is someone who’s doing something really slick in an omni-channel environment very quickly your customers will be saying: ‘Why don’t you do that here?’.”

Different cultures within the retail industry
To make changes do we have to change the processes that we have in order to meet the requirements of the vastly changing sector that we’re working in and do people have to change and collaborate more effectively? TCS’ Siva said that lately technology has become disruptive to the point where practices and processes get fragmented and dispersed over so many types of device that they play a role in actually distorting or evolving business processes.

He added: “There are three patterns emerging, one is what you might call a digital demographic divide, there’s various segments of the population that seem to be more conversant or not so familiar with technology as a medium to transact. Second is, business processes are getting disrupted, so there’s a level of complexity getting injected. Technology is no longer mainframe, it’s all over devices like iPads and smartphones. And lastly people are looking at supply chains that are increasingly more global and complex. All of it adds up to an incredible increase in the complexity of testing.”

Practicology’s Lewis pointed out that if a retailer has a project of some urgency and time is of the essence, how do they balance that speed with all the other steps in the testing process? Lewis agreed there was a balance needed between the two. “The experience I have at the start of a project, you do the planning and everyone seems to agree a nice chunky period of testing is absolutely the right thing to do,” he explained.

“But as time goes on and things slip the first thing that gets squeezed is testing. It’s hard to try and hold that line under the pressure of late deliveries of the technology. And then of course the risks go up, everything in business is a balance of risk.”

Testing in a mobile world
By 2013 smartphone global ownership is forecast to be 57 per cent, tablet ownership across the world to be 31 per cent and that m-commerce has seen a 358 per cent year-on-year increase since April.

“Look at the exponential growth,” said James Spittle chairman of GS1. “Thirty-three per cent of CPG purchases are influenced by some kind of online activity and that’s growing. So the question is, with that sort of growth, are we busy trying to get to market too quickly and not doing the things that we should be? And should we be trying to articulate the cautious route through testing and getting it right first time rather than falling the consumer which, ultimately, is at the heart of all of this?”
Practicology’s Lewis said he believes retailers will find it tough to make an overriding call. “Every situation is different. You’ve really got to look at the specifics of what you’re trying to deliver, the environment you’re in, the people, the resources you’ve got and make a call on it. And when it comes to balancing all of those points every case is different.”

Tesco.com’s Mennan-Wilkins suggested the nice thing about the online world is that you can test a lot of things in parallel to the real site. She says as a best practice it’s good to have a preview site where you can see, not only what the new changes will look like, but also where you can interact with customers. “It means you can have a small group of customers testing the site with you while you carry on trading,” Mennan-Wilkins pointed out.

A/B and multivariate testing is when a retailer is not necessarily releasing a new application or functionality but they’re tweaking some new part of the user interface and its functionality. This is becoming more common – retailers releasing a change to a carefully limited percentage of the user base.

Wayne Abbiss, display manager fresh, frozen and produce at Marks & Spencer, added: “I think the challenge that we’ve had over the last couple of years is that because of the old legacy systems, when we told M&S the world was moving to multi-channel and asked what this would mean for M&S, the internal view was: ‘We don’t know what we don’t know.’ So, we want to be at the front of the pack, we want to make the investment in the systems, technologies and processes, but actually internally we don’t necessarily understand yet how that’s going to fit into the way we trade.

“The other side of it that I’ve experienced over the last few years is that when you’re dealing with the IT supplier and the experts within that field, it’s quite often that they’re unwilling to share what the current view of best practice is, due to confidentiality of other projects. But also the speed at which technology is changing itself. What may be best practice now may not necessarily be the same in 2, 5 or 10 year’s time but you still have to make a significant investment to keep up with the pack.”

**KPIs typically affected in multi-channel testing**

TCS’ Siva said: “Typically the ones that still hold good are; speed to market because retailers want to push out new products and services across channels to consumers.

“Cost of quality; escapes into production and containment you have from a defect perspective. We’re seeing a big variant here, it’s not just IT defects or buggy code or a memory leak or other things you typically see in IT, it’s something that has a business impact.”
"Third is cost, it's very fashionable to say 'agile and flexible'. There's a lot of jargon out there but if you don't get your requirements right then you could code really fast and probably test in a hurry and then repent at leisure trying to fix the whole thing again. I've had some CIOs challenge me and say: 'Why should we test at all? You guys are supposed to get it right first time anyway.' Good question, but everyone knows that 40 per cent of what you burn in IT is some sort of review. It's always about calibrating risk."

Practicology's Lewis added: "It seems to me the overriding KPI here is customer satisfaction."

Reasons for IT to outsource testing
Practicology's Lewis highlighted that communication is one of the main challenges of outsourcing IT. He points out that "You might find out that checkout isn't working or PayPal integration isn't there so the testing you planned to do you can't do yet," Lewis explained. "If you're in a room with the people working on these problems it's much easier to come to some agreement about going ahead with testing without PayPal integration etc.

"When you live and breathe a project there are some things you just assume, you take for granted, you think people will understand, so getting a fresh pair of eyes on it from somebody outside the organisation is very useful."

Tesco.com's Mennan-Wilkins added "It really depends, a lot of it you could outsource because you could set the criteria but there are some parts of it that are just far too front facing to the customer to risk it." Mennan-Wilkins also cited the time it could take to coach somebody from outside the business to know what their standards are as a potential challenge of outsourcing.

TCS' Siva answered: "There's cycle time advantage where agility is baked into the process. Obviously this needs to be managed very closely, but that's one key driver in terms of product cycle times and launches. The other is being able to digitise your test processes, including test strategy, planning, and the creation of the test cases and scenarios. Having this automation means you can do more for less as you get into multiple releases.

"If you'd rather, you can retain control of strategy and planning but outsource and digitise the rest. A lot of organisations we deal with tend to keep strategy close to heart because they have intellectual property that they want to maintain, but other aspects of the value chain are outsourced."

It was concluded that testing capabilities were paramount with the security issues that might arise from the effects of emerging technologies.

Practicology's Lewis said: "When you get to the point where you think you're ready to go to the live environment, remember things can be very different once you get there. However much you think the two systems are meant to be very similar it's a completely different setup. You need to find a way to test it in live with the minimum amount of exposure before you release it to a wider audience.

Tesco.com's Mennan-Wilkins said: "Take time to think before you spend and remember the core reason for doing it. Don't be taken in by the technology lingo that makes it sound really exciting, always think: 'Is this right for my business?' And therefore, should you be making this investment?"

IDC's Bardwell said: "Multi-channel is here to stay, it's proven to increase and improve your customer experience. That's evident in the uplift in sales revenue as well as customers spending across more than one channel. But, of course, there needs to be a business case first to invest in these right channels."